



Gulf of Mexico Program Director's Report

Jan/Feb/Mar 2003

Lower MS River Sub-Basin Committee

In This Issue:

Lower MS River Sub
Basin Committee

Gulf of Mexico
Coastal Ocean
Observing System

Seagrass Status &
Trends

Mercury Consumption
Advisories Project
Team Update

MS Coastal Basin
Watershed Forum
Set

TNC to Partner with
GMP on Gulf Wings
Project

Nutrient Pilot Study in
the Northern Gulf of
Mexico

Nutrient Farming for
Pollution Control

Highlights of the
Management
Committee Meeting

Updated Catalog of
Federal Funding for
Watershed
Protection Now
Online

Calendar of Events

2003 Gulf Guardian
Award Application
Available On-line

The Lower Mississippi River Sub-Basin Committee held its first formal meeting Feb. 10 in New Orleans and included participants from Arkansas, Louisiana, Mississippi, Tennessee, Texas, EPA, USDA, ORSANCO, academia, environmental groups, industry, agri-business and the media.

This committee was formed in response to the *Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico* (Action Plan). This is the first of six sub-basins to organize around the issue of low-oxygen levels in the Gulf.

The Action Plan calls for reducing the size of the hypoxic zone by decreasing

the amount of nitrogen entering the Mississippi River by 30 percent. The Plan also identifies strategies for Mississippi River Sub-basin committees to pursue, including: setting reduction targets for nitrogen losses to surface waters; establishing a baseline of existing efforts for nutrient management; and identifying opportunities to restore wetlands.

Some of these actions are already being undertaken by states and agencies as part of their water quality programs and watershed projects. Coordinating these actions and working to expand them will be one key part

of the Sub-basin Committee's work.

The group proposed four areas of concentration to restore the ecological balance of the watershed:

1) identify common, quantifiable, and qualifiable issues; 2) identify resources and plans to address those issues; 3) implement a pilot project in each state; and 4) combine federal, state, and private sector funding in each project area. The projects and outcomes from this group will be presented at the next Hypoxia Task Force Meeting. (Contact Larinda Tervelt, tervelt.larinda@epa.gov)

Gulf of Mexico Coastal Ocean Observing System

Many organizations and individuals are concerned with sustained observations, and/or products and services based on such observations, from the estuaries and near coastal waters in the Gulf of Mexico. A group of these constituents agreed to form a Gulf of Mexico Coastal Ocean Observing System (GCOOS) as a part of a U.S. National Federation of such systems.

The organizational meeting was held Jan. 14 and 15 at Stennis Space

Center, MS, and attendees agreed on a GCOOS mission statement.

The group acknowledged that a large number of Gulf of Mexico observations, products, and services are now produced on an ongoing basis.

The group also recognized that additional observations and work to refine products and services are needed.

The task of identifying ongoing activities that should be considered as the initial building blocks

for GCOOS has begun and will be updated.

At the organizational meeting, the planners prepared an initial resolution for members of GCOOS and agreed on an organization structure, though membership is not yet complete.

The group is actively pursuing collaborations with other nations bordering the Gulf in designing and implementing this regional observing system. (Contact Larinda Tervelt, tervelt.larinda@epa.gov)

Seagrass Status and Trends Report

"In 1992, the total seagrass coverage in the shallow waters in estuaries and near shore waters of the Gulf was estimated to be 2.52 million acres."

The Gulf of Mexico Program has long recognized seagrasses, estuaries, and coastal wetlands as vital in providing food and shelter for certain plants and animals, improving water quality, sediment filtration and flood and erosion control. In 1999, the GMP=s Habitat Team, set a goal to restore, enhance, or protect important coastal and marine habitats in U. S. areas of the Gulf by 20,000 acres by 2009.

The Habitat Focus Team, recognizing that seagrasses are some of the most productive habitats in near shore waters of the Gulf Coast, also set an objective to produce a Gulf-wide

Seagrass Status and Trends Report. The purpose of this report is to provide scientists, managers and citizens alike with valuable, current baseline information on the status of seagrasses in the coastal waters of the Gulf of Mexico.

To produce this report, the GMP=s Habitat Team formed a Seagrass Status and Trends Sub-committee consisting of seagrass scientists and experts along the Gulf Coast. This committee provided valuable information regarding the latest seagrass maps, seagrass status and trends, causes of change and current monitoring, restoration and enhancement activities important

to their areas.

In 1992, the total seagrass coverage in the shallow waters in estuaries and near shore waters of the Gulf was estimated to be 2.52 million acres. This updated report to be completed in May of 2003 will provide current baseline data for the status of seagrasses in the Gulf. Baseline seagrass data for each Gulf state and specific local areas will also be provided in the report. This information will be useful to scientists, state and local environmental managers and decision-makers.

(Contact Diane Altzman, altzman.diane@epa.gov)

Mercury Consumption Advisories Project Team Update

Members of the Mercury Consumption Advisories Project Team participated in a conference call Feb. 19, to follow up on action items resulting from the December 2002 workshop.

Members reviewed the states' progress on RfD revisions. The reference dose (RfD) is an amount of methylmercury, which when ingested daily over a lifetime is anticipated to be without adverse health effects to humans, including sensitive subpopulations. The state's representatives

agreed that they would like a better understanding of how EPA developed its RfD as well as a more rigorous definition of the sensitive subpopulation.

One especially difficult point to define is the age at which rapid development of the nervous system is complete in children. Also recent papers in the New England Journal of Medicine describe potential adverse effects of methylmercury in fish on the cardiovascular system in middle aged men.

The Gulf of Mexico

Program agreed to try and get EPA toxicologists to participate in a meeting of the Team in June to discuss the development of the RfD.

One of the differences in the states' advisories for king mackerel is the way in which length of the fish is measured. All of the states indicated that the advisory could be based on the fork length with the equivalent total length included in parenthesis. This applies to the states in which the size limits are based on total length.

(Contact Dr. Fred Kopfler, kopfler.fred@epa.gov)

"One especially difficult point to define is the age at which rapid development of the nervous system is complete in children."

MS Coastal Basin Watershed Forum Set

The South Mississippi Environmental & Agricultural Coordination Organization (SMEACO) is busy planning for the 2nd Annual Mississippi Coastal Basin Watershed Forum Roundtable, scheduled for Friday and Saturday, April 25-26.

This year's event will be held at the Air National Guard Center in Gulfport, Miss., and promises to build upon the successful inaugural meeting held in March 2002. The two-day event is designed to allow broader participation from both the public and private sector, including youth.

Friday, key discussions

will focus on the group's operation and promotion, including success stories from local watershed groups, an overview of state and federal agencies and groups responsible for water-related laws and regulations, a survey of land-use practices, and discussions of the structure and future goals of the organization.

A late afternoon/evening social targeting local and state politicians, business leaders, and city and county workers will provide the group with an opportunity to educate these leaders about SMEACO and the

resources available.

A "Watershed Fair" on Saturday is targeted to the general public, teachers, and youth. It will include displays and hand-on activities that focus on water-related topics. The fair is being promoted as a kid-friendly, family event.

For additional information about the Forum and upcoming Roundtable events, contact Mark LaSalle at the Mississippi State University Coastal Research and Extension Center at 228-388-4710 or email him at markl@ext.msstate.edu.



Attendees at the 2002 Mississippi Coastal Basin Watershed Forum held at the Orange Grove Community Center in Lyman, Miss., listen attentively to speakers. The 2003 Forum is set for April 25-26.

TNC to Partner with GMP on Gulf Wings Project

Gulf Wings is The Nature Conservancy's (TNC) project to protect "stopover" habitat for forest-dwelling migratory birds around the Gulf of Mexico, the most important geographic barrier to migration in North America. The project is viewed as having a limited life of perhaps three years with a budget of \$1.6 million, and is part of the Conservancy's Migratory Bird Program.

The mission of Gulf Wings is the conservation of the critically threatened stopover habitat around the Gulf of Mexico crucial to the survival of the many North American bird species whose migratory routes converge on this area.

Gulf Wings will enhance the site-based conservation efforts of The Nature Conservancy and its partners around the Gulf of Mexico by bringing attention, coordination, resources, and scientifically sound planning to conserving habitats needed by migratory birds traveling between their North American breeding grounds, and their wintering areas both in the region and farther south.

Forest-dwelling neotropical migratory birds stretch the limits of scale in conservation planning. They breed in many of TNC's portfolio sites in North America, and winter in Central and South America. Identified conservation areas in

these places do not, however, automatically protect habitat en route between the geographic ends of the birds' life cycles. Even if TNC portfolio sites can provide adequate stopover habitat, conservation area plans must insure appropriate ecological management. A reliable way to measure the success of such efforts is also needed.

The Gulf of Mexico presents an enormous barrier for most migratory birds traveling between the United States and Canada, and wintering grounds in the neotropics. Some species avoid the water crossing through circum-Gulf migratory routes, while others make trans-Gulf flights. In a few

species, a broad front migration is found with individuals selecting either route. Coastal areas are crucially important as stopover habitat no matter which route is involved. Population growth projections in Gulf states suggest an increasing threat to natural areas. Gulf Wings will address these issues and provide conservation actions for migratory birds around the Gulf of Mexico as they travel to and from their wintering and breeding areas.

TNC and GMP representatives will meet at Stennis Space Center May 14 to discuss partnership details on this project. (Contact Diane Altzman, altzman.diane@epa.gov)

Nutrient Pilot Study in the Northern Gulf of Mexico

For more information on either of these topics, contact Larinda Tervelt at 228-688-1033, or: tervelt.larinda@epa.gov

States are required to develop nutrient criteria to protect estuarine and coastal ecosystems from eutrophication. Estuaries and nearshore coastal waters naturally vary in the type, abundance, and geographic coverage of biological communities at risk to nutrient over enrichment. As a result of this variation, a single national criterion or a regional criterion applicable to all estuaries is not possible due to largely unique systems. Therefore, the nutrient criteria guidance (Nutrient Criteria Technical Guidance Manual-Estuarine and Coastal Marine Waters, EPA-822-B-01-003) suggests that a

reference approach be used for nutrient criteria development.

The Gulf States are moving toward nutrient criteria and need data that will help them set criteria for the variety of coastal and estuarine waters. The Gulf of Mexico Program Office, at the request of EPA Headquarters and EPA Region 4, agreed to facilitate and coordinate a data assessment process for a meaningful characterization and ecosystem assessment of nutrient load/responses for the near coastal waters and associated estuaries of the Northern Gulf of Mexico.

The purpose and scope of the assessment

will be to provide information that can be used by states in the development of nutrient criteria and management responses. We will develop a scientifically derived characterization and assessment/analysis of the Northern Gulf of Mexico ecosystems as they relate to nutrient concentrations and loadings.

Study findings will be transferable to other estuarine/coastal water environments in the Gulf of Mexico. The study will also provide vital information to supplement EPA's existing guidance and is needed to provide support and assistance to states using scientifically based alternative approaches to develop nutrient criteria.

Nitrogen Farming for Pollution Control

Can nitrogen farming become an accepted and desirable means for improving water quality by promoting wetland restoration?

Farm fields, pastures, forests, wetlands, and riparian areas are linked together by surface water and groundwater and these links affect nitrogen loading. Nitrogen farming involves flooding land with nutrient-rich water for a period of time sufficient to achieve denitrification. It could be an alternative farm enterprise.

The Gulf of Mexico Program sponsored a workshop in Chicago Feb. 21 to discuss factors to consider when selecting pilot projects for reducing nitrogen loading into the

Mississippi River.

The group agreed that general criteria needed for denitrification should include: (1) hydrologic conditions necessary to promote denitrification - where soils remain saturated for extended periods of time throughout the year; (2) storage capability to measure relationships that govern residence time and water depth; and (3) buffering ability between terrestrial and aquatic systems.

They also decided that in order to choose a pilot project, the following questions must be answered: (1) how much per pound will it cost to use wetland restoration to remove nitrogen? (2) what wetland parameters

maximize denitrification? (3) how would wetland design be modified if increasing biodiversity were considered? (4) how is nitrate-nitrogen reduction quantified?

Several key site criteria include: (1) high concentrations of nitrate-nitrogen in surface runoff and/or groundwater; (2) presence of hydric soils and prevalent shallow water tables or frequent and sustained saturated soil conditions; (3) landowner cooperation; and (4) suitability for monitoring to quantify reduction in nitrate - nitrogen.

Performance criteria would include: (1) effective in reducing

(Continued on Page 5)

Highlights of the Management Committee Meeting

At its March 12-13 meeting, the Gulf of Mexico Program Management Committee (MC) expressed strong support for the final draft of an Executive Order establishing the Gulf of Mexico Program.

The final recommendation on the executive order will be sent by the Policy Review Board Co-chairs to the Administrator of EPA.

During the meeting, members received updates on the Nutrient Pilot Study in the Northern Gulf; the Pilot Nitrogen Farming Project; Coastal America and the Texas Corporate Wetlands Restoration Project; *Vibrio vulnificus* occurrences during 2002 and consumer education programs; and the Mercury Project Team Workshop.

Members present also discussed the following: scheduling a meeting with the Gulf States and EPA to discuss

the National Coastal Condition Report; the inclusion of Refuges with the Gulf Ecological Management Sites (GEMS); coordinated Federal Inventory for projects; and hosting a meeting with the Health, Ecology, and Environmental Protection Workgroup of the Governors Accord to coordinate data sharing.

The Management Committee endorsed a joint symposium with the Harte Research Institute for Gulf of Mexico Studies and a proposal from The Nature Conservancy to form a partnership to achieve the Gulf Program's habitat restoration goals.

Nitrogen Farming (Continued from page 4)

nitrate-nitrogen loading to the Mississippi River; (2) other environmental benefits, i.e., wildlife habitat improvement; improved aquatic environment for recreational use, i.e., fishing; reduced downstream sedimentation; reduced flood peaks and associated damages; and carbon sequestration; and (3) direct financial benefits to the landowner.

Although scientists currently can predict nitrogen removal rates in general, they need to determine how much denitrification can occur across wetlands of varying types under specific environmental conditions. An overall plan is needed to assess the effectiveness of N-farming systems.

Updated Catalog of Federal Funding for Watershed Protection Now Available Online

EPA recently updated the *Catalog of Federal Funding Sources for Watershed Protection*.

This Catalog is now online as an easy to use, searchable Web site. The Web site provides information for watershed practitioners and others on 84 Federal funding sources that may be available to help fund various watershed-related projects.

The Web site updates EPA's *Catalog of Federal*

Funding Sources for Watershed Protection (EPA 841-B-99-003) previously published in 1999 and was developed by an Office of Water Finance Work Group with representatives from staff in the Office of Water.

EPA plans to update the Web site on an ongoing basis. There is a one-page flyer to publicize this new Web site available at no charge from NSCEP at 800-490-

9198 (please ask for the flyer called "Catalog of Federal Funding Sources for Watershed Protection," EPA 841-F-03-001).

To view the Web site, go to: <http://www.epa.gov/watershedfunding>.

"Catalog of Federal Funding Sources for Watershed Protection now available online at: <http://www.epa.gov/watershedfunding>."

Gulf of Mexico Program

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The *Gulf of Mexico Program Director's Report* is produced quarterly to highlight Gulf of Mexico Program activities and events.

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We're on the Web!

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Calendar of Events

All dates are 2003, unless specified otherwise

Date	Event	Location
April 13	Fairhope Bay Area Each Day Celebration (GMP Exhibiting)	Fairhope, AL
April 25-26	Mississippi Coastal Basin Watershed Forum (GMP Exhibiting)	Gulfport, MS
May 20	Deadline for Submitting Gulf Guardian Award Applications	No location
June 10-11	Bi-National Collaboration Meeting (Tentative)	New Orleans
June 23-24	Mercury Project Team Meeting	New Orleans
June 24	Citizens Advisory Committee Meeting	New Orleans
June 25-26	GMP Comprehensive Meeting Plenary Habitat Focus Team Meeting Nutrient Enrichment Focus Team Meeting Vibrio Education Sub-committee Meeting NEP Outreach Committee Meeting	New Orleans
June 26	Bacterial Source Tracking Forum EPA Hypoxia Mgt. Plan Meeting Data and Info Transfer Committee Meeting CAC Wrap-up	
June 27	NEP Outreach Committee Meeting	
Sept. 10-14	Society of Environmental Journalists Conference (GMP Exhibiting)	New Orleans
Sept. 23-25	Southern States Environmental Conference (GMP Exhibiting)	Biloxi, MS
Sept. 24	2003 Gulf Guardian Awards Ceremony in conjunction with the Southern States Environmental Conference	Biloxi, MS
Sept. 27	Celebrate the Gulf (GMP Exhibiting)	Pass Christian, MS

About the Gulf of Mexico Program

The Gulf of Mexico Program is sponsored by the U.S. Environmental Protection Agency and is a non-regulatory, inclusive consortium of state and federal government agencies and representatives of the business and agricultural community, fishing industry, scientists, environmentalists, and community leaders from all five Gulf States. The Gulf Program seeks to improve the environmental health of the Gulf in concert with economic development.

2003 Gulf Guardian Awards Entry Deadline Extended!

The deadline for applying for the 2003 Gulf Guardian Awards has been extended to May 20, 2003. Applications are available on line at: www.epa.gov/gmpo/gulfguard.html. Once there, click on the entry form button and download the Microsoft Word entry form. When completed, the entry can be emailed to: Gulf.Guardian@epa.gov. Awards will be presented at the Southern States Environmental Conference scheduled for Sept. 23-25, 2003, in Biloxi, Miss.